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Exercise - I (Conceptual Questions) Build Up Your Understanding

THE MALE REPRODUCTIVE SYSTEM

1. Which one of the following is a primary sex organ of human male ?
(1) Scrotum (2) Penis
(3) Testis (4) Prostate gland

2. Secondary sex organ in human male is :-
(1) testis (2) ovary
(3) beard (4) vas deferens

3. Vasa efferentia connect the :-
(1) testis with epididymis
(2) kidney with urinary bladder
(3) testis with scrotal wall
(4) None of the above

4. In human, failure of testes to descend into scrotum is known as :-
(1) paedogenesis (2) castration
(3) cryptorchidism (4) impotency

5. Common duct formed by union of vas deferens and duct from seminal vesicle is :-
(1) urethra
(2) tunica vasculosa
(3) ejaculatory duct
(4) spermatic duct

6. Scrotum communicates with abdominal cavity through :-
(1) urethra (2) inguinal canal
(3) vas deferens (4) epididymis

7. Tunica albuginea is the covering around :-
(1) oviduct (2) testis
(3) kidney (4) heart

8. The functional unit of testis is :-
(1) uriniferous tubules
(2) malpighian tubules
(3) seminiferous tubules
(4) acini or lobules

9. Penile urethra traverses through :-
(1) corpus cavernosum
(2) corpus spongiosum
(3) corpus callosum
(4) corpus striatum

10. Seminiferous tubules are composed of :-
(1) spermatogonia
(2) glandular epithelium
(3) sensory epithelium
(4) germinal epithelium

11. In human, the testes are located in :-
(1) abdominal cavity
(2) thoracic cavity
(3) extra-abdominal cavity
(4) pericardial cavity

12. Bundles of erectile tissues in penis are :-
(1) corpora cavernosa
(2) corpus spongiosum
(3) Both (1) & (2)
(4) None of the above

13. Glans penis is covered by :-
(1) areolar membrane (2) prepuce
(3) metrium (4) None of these

14. In human, the testes occur in scrotal sacs, outside the viscera because of the :-
(1) presence of urinary bladder
(2) presence of rectum
(3) long vas-deferens
(4) requirement of low temperature for spermatogenesis

15. Read the following statements.
(a) It is paired structure
(b) It is present on lateral side of male urethra
(c) It help in lubrication of penis
In above statements 'it' refers to :-
(1) seminal vesicle
(2) Bartholin's gland
(3) bulbourethral gland
(4) prostate

16. Cells of Leydig occur in :-
(1) liver (2) ovary
(3) testis (4) spleen

17. Seminiferous tubules occur in the :-
(1) liver (2) kidney
(3) ovary (4) testis

18. Fructose is present in the secretion of:-
(1) seminal vesicle (2) perineal gland
(3) Cowper's gland (4) Bartholin's gland

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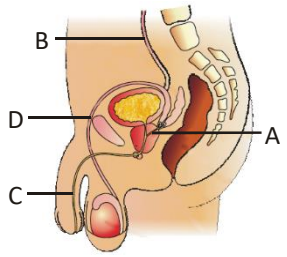
19. It is a diagrammatic sectional view of male reproductive system. Identify common duct which forms from the fusion of duct of seminal vesicle and vas deferens.



(1) A (2) B (3) D (4) C

20. Temperature of scrotum as compared to abdominal cavity is less by :-
(1) 1^0C (2) 5^0C
(3) 3^0C (4) 10^0C

21. Outer coat of seminiferous tubules is composed of fibrous connective tissue and is called as :-
(1) tunica propria (2) lamina propria
(3) plica semilunaris (4) tunica albuginea

22. Secretions from which one of the following glands are rich in fructose, calcium and some enzymes ?
(1) Salivary glands
(2) Female sex accessory glands
(3) Male sex accessory glands
(4) Liver

23. Which is an unpaired gland of male reproductive system ?
(1) Bartholin's gland (2) Seminal vesicle
(3) Prostate gland (4) Cowper's gland

24. In human, maturation of sperms take place at a temperature :-
(1) equal to that of body
(2) higher than that of body
(3) lower than that of body
(4) at any temperature

25. Circumcission is the procedure of :-
(1) cutting the glans penis
(2) removal of whole skin of penis
(3) removal of movable skin (prepuce) of glans penis
(4) reduction of the body part of penis

26. Prostate gland produces a secretion for :-
(1) attracting sperms
(2) stimulating sperm activity
(3) attracting egg
(4) None of the above

27. Testes descend into scrotum in human for:-
(1) spermatogenesis
(2) fertilization
(3) development of sex organs
(4) development of visceral organs

28. Tunica vaginalis is found in :-
(1) ovary of female (2) testis of male
(3) vagina of female (4) None of the above

29. Spermatozoa are nourished during their development by :-
(1) Sertoli cells
(2) interstitial cells
(3) connective tissue cells
(4) None of the above

30. Release of sperms from testis is called as :-
(1) spermiation (2) semination
(3) insemination (4) ejaculation

THE FEMALE REPRODUCTIVE SYSTEM

31. A secondary sexual character of human female is :-
(1) breasts (2) ovaries
(3) testes (4) thyroid gland

32. Which is not a secondary sex organ in human?
(1) Vagina (2) Penis
(3) Prostate (4) Mammary gland

33. At puberty, woman starts producing :-
(1) sperms (2) urine
(3) young ones (4) ova

34. Eggs from ovary are released in :-
(1) oviduct (2) kidney
(3) ureter (4) coelom

35. Lower narrow end of uterus is called as :-
(1) urethra (2) cervix
(3) clitoris (4) vulva

36. Germinal epithelial cells are cuboidal and these are found in :-
(1) testes (2) ovaries
(3) Both (1) & (2) (4) None of the above

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37. Degenerative process of follicles or eggs in ovary is called :-
(1) metagenesis (2) atresia
(3) regression (4) None of the above

38. Endometrium is lining of :-
(1) testis (2) urinary bladder
(3) uterus (4) ureter

39. Clitoris is present at the upper junction of :-
(1) labia majora (2) mons pubis
(3) perineum (4) labia minora

40. Which of the following is not related to vulva?
(1) Mons veneris (2) Clitoris
(3) Labia majora (4) Epididymis

41. Parturition canal in female is :-
(1) uterus (2) oviduct
(3) vagina (4) urethra

SPERMATOGENESIS AND STRUCTURE OF HUMAN SPERM

42. During differentiation, the spermatids remain associated with :-
(1) Leydig's cells (2) Kupffer's cells
(3) Spermatogonia (4) Sertoli cell

43. In gametogenesis, reduction division takes place during :-
(1) multiplication phase
(2) growth phase
(3) first maturation division
(4) second maturation division

44. Which type of division takes place during second maturation division ?
(1) Reduction division
(2) Equational division
(3) Amitosis
(4) None of the above

45. Longest phase of spermatogenesis is :-
(1) multiplication phase
(2) growth phase
(3) maturation phase
(4) germinal phase

46. During spermatogenesis, how many spermatozoa are formed from a single primary spermatocyte ?
(1) 1 (2) 2
(3) 4 (4) 8

47. Correct order of spermatogenesis is :-
(1) Spermatids → Spermatogonium → Spermatocytes → Sperms
(2) Spermatogonium → Primary spermatocyte → Secondary Spermatocytes → Spermatids→ Sperms
(3) Primary spermatocyte → Spermatogonium → Secondary spermatocytes → Sperms → Spermatids
(4) Spermatogonium → Secondary spermatocytes → Primary spermatocyte → Spermatids → Sperms

48. Which part of sperm is called power house ?
(1) Head (2) Neck
(3) Middle piece (4) Tail

49. The acrosome plays a role in :-
(1) fusion of nuclei of gametes
(2) motality of sperm
(3) penetration of sperm into ovum
(4) All of the above

50. The head of a mature sperm is mainly composed of :-
(1) elongated nucleus and acrosomal material
(2) mitochondria, cytoplasm and nucleus
(3) two centrioles and the axial filament
(4) All of the above

51. A mature sperm has :-
(1) a pair of flagella
(2) a nucleus, an acrosome and a centriole
(3) a nucleus, an acrosome and a pair of centrioles
(4) a nucleus, an acrosome and a pair of centrioles and a tail

52. Which part of the spermatid forms acrosome of sperm ?
(1) Mitochondria (2) Golgi body
(3) Nucleus (4) Lysosome

53. Which of the following sets of vitamins is essential for gametogenesis ?
(1) Vitamin A and vitamin E
(2) Vitamin C and vitamin D
(3) Vitamin E and vitamin K
(4) Vitamin E and vitamin B complex

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OOGENESIS

54. At the time of birth, egg is arrested in the form of :-
(1) oogonia (2) primary oocyte
(3) secondary oocytes (4) ovum

55. A human female has the maximum number of primary oocytes in her ovaries :-
(1) at menopause
(2) at puberty
(3) at birth
(4) early in her fertile years

56. Egg is librated from ovary in human at :-
(1) secondary oocyte stage
(2) primary oocyte stage
(3) oogonial stage
(4) mature ovum stage

57. During oogenesis, first meiotic division starts in :-
(1) first polar body
(2) second polar body
(3) primary oocyte
(4) secondary oocyte

58. Which of the following are haploid cells ?
(1) Primary spermatocytes and primary oocytes
(2) Secondary spermatocytes and secondary oocytes
(3) Spermatogonia and oogonia
(4) Germinal cells.

59. The process of spermatogenesis and oogenesis in human are under the influence of which hormone ?
(1) Oxytocin (2) FSH
(3) ACTH (4) ICSH

60. During which stage of gametogenesis meiosis occurs?
(1) Growth phase
(2) Multiplication phase
(3) Maturation phase
(4) None of the above

61. The primary egg membrane of human egg is:-
(1) chorion (2) corona radiata
(3) zona pellucida (4) None of the above

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62. Which of the following are diploid cells ?
(1) Secondary spermatocytes
(2) Spermatozoa and ova
(3) Spermatogonia, oogonia and primary spermatocytes
(4) Secondary oocytes

63. Stored food of oocyte is :-
(1) nucleus (2) cytoplasm
(3) corticle granules (4) yolk

64. Polar body is produced during the formation of :-
(1) sperm (2) secondary oocyte
(3) oogonium (4) spermatocytes

INTERNAL STRUCTURE OF OVARY, OLLICULAR DEVELOPMENT AND MENSTRUAL CYCLE

65. Central stroma of ovary is made up of :-
(1) fibrous connective tissue
(2) reticular tissue
(3) adipose connective tissue
(4) None of the above

66. Ovarian follicles are present in :-
(1) medulla
(2) germinal epithelium
(3) cortex
(4) mesovarium

67. Graafian follicle contains :-
(1) many oocytes
(2) many sperms
(3) a single oocyte
(4) site for fertilisation of egg

68. In human, corpus luteum is found in :-
(1) brain (2) ovary
(3) liver (4) eyes

69. Antrum is filled with fluid and is found in :-
(1) bone marrow of bone
(2) cavity of brain
(3) Graffian follicle of ovary
(4) pericardium of heart

70. Which one of the following is fibrous layer of follicle ?
(1) Theca externa
(2) Zona pellucida
(3) Membrana granulosa
(4) Vitelline membrane

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71. In case of non fertilization, corpus luteum :-
(1) stops secreting progesterone
(2) changes into corpus albicans
(3) starts producing progesterone
(4) None of the above

72. Lutein cells are found in :-
(1) primary follicle (2) corpus albicans
(3) corpus luteum (4) All of the above

73. Corpus luteum is a/an :-
(1) excretory structure
(2) endocrine structure
(3) digestive structure
(4) respiratory structure

74. Luteal phase is the other name of :-
(1) follicular phase
(2) proliferative phase
(3) menstrual flow phase
(4) secretory phase

75. Follicular phase of menstrual cycle is also known as :-
(1) proliferative phase
(2) secretory phase
(3) luteal phase
(4) menstruation phase

76. Loss of reproductive capacity in women after age of approximately 45 years is known as :-
(1) menstruation (2) ageing
(3) menopause (4) menarche

77. Which of the following hormones induces the development of corpus luteum ?
(1) LH (2) Oestrogen
(3) FSH (4) LTH

78. The process of releasing the mature female gamete from the ovary is called as :-
(1) ovulation (2) parturition
(3) implantation (4) fertilisation

79. Ovulation hormone is :-
(1) FSH (2) ICSH
(3) LH (4) testosterone

80. Onset of pregnancy :-
(1) stimulates testosterone secretion
(2) inhibits further ovulation
(3) leads to degeneration of ovary
(4) inhibits fusion nuclei of egg and sperm

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81. Which of the following statements is correct ?
(1) Menstrual cycle is present in all mammals.
(2) Menstrual cycle is present in all primates.
(3) Estrous cycle occurs in all mammals.
(4) Most of the mammals are ovoviviparous.

82. Yellow corpus luteum occurs in a human in :-
(1) heart to initiate heart beat
(2) skin to function as pain receptor
(3) brain and connects cerebral hemispheres
(4) ovary for secretion of progesterone

83. The fall in progesterone level leads to :-
(1) gestation (2) menopause
(3) lactation (4) mensturation

84. In uterus, endometrium proliferates in response to :-
(1) relaxin (2) oxytocin
(3) progesterone (4) oestrogen

85. Pregnancy hormone is :-
(1) estrogen (2) progesterone
(3) LH (4) FSH

86. Pregnancy is detected with the help of presence of which hormones in urine of a pregnant female ?
(1) LH (2) Progesterone
(3) FSH (4) hCG

STRUCTURE OF HUMAN EGG AND FERTILIZATION

87. Site of fertilization in human is :-
(1) ovary (2) uterus
(3) vagina (4) fallopian tube

88. During fertilization, intermixing of chromosome of male and female gametes is called :-
(1) syngamy (2) plasmogamy
(3) karyogamy (4) amphimixis

89. After cortical reaction, formation of fertilization membrane occurs :-
(1) outside of corona radiata
(2) inside of corona radiata
(3) in perivitelline space
(4) inside of membrane of oocyte

90. Which of the following is responsible for division in fertilised egg ?
(1) Centriole of ovum
(2) Proximal centriole of sperm
(3) Distal centriole of sperm
(4) Mitochondria of sperm

91. Capacitation of sperm occurs in :-
(1) urethra (2) vas deferens
(3) vagina (4) seminal vesicle

92. Which part of sperm enters in egg in human ?
(1) Complete sperm
(2) Only head
(3) Head and middle piece
(4) Head and acrosome

EMBRYONIC DEVELOPMENT

93. Cleavage starts in :-
(1) fallopian tube (2) uterus
(3) vagina (4) None of these

94. Cells formed as a result of cleavage are called as :-
(1) megameres (2) micromeres
(3) blastocyst (4) blastomeres

95. Which of the following characteristics does not belong to cleavage ?
(1) Decrease in size of blastomeres
(2) Rapid mitotic cell division
(3) Interphase of very short duration
(4) Differention of blastomeres

96. How many of the following structures may found in fallopian tube ?
Morula, Secondary oocyte, Primary oocyte, Secondary follicle, Ovum, Zygote, Blastocyst, Gastrula.
(1) 3 (2) 2 (3) 4 (4) 5

97. What is true for cleavage ?
(1) Size of embryo is increased
(2) Size of cells is decreased
(3) Size of cells is increased
(4) Size of embryo is decreased

98. Solid ball of cell produced by repeated cleavage is called as :-
(1) gastrula (2) blastocyst
(3) morula (4) None of the above

99. In gastrula stage, which layer(s) is/are formed ?
(1) ectoderm (2) mesoderm
(3) endoderm (4) All of the above

100. Morphogenetic movements of blastomeres result in:-
(1) morula stage (2) blastocyst stage
(3) gastrula stage (4) zygote

101. Gastrulation is a process :-
(1) which starts the formation of germ layers
(2) that occurs just after morulation
(3) that occurs just after cleavage
(4) of rapid growth in blastomeres

102. In which stage of development, the embryonic cells form the germinal layers?
(1) Morula (2) Blastocyst
(3) Gastrula (4) Zygote

103. Sexually reproducing multicellular animals start their embryonic development from :-
(1) gastrula stage (2) morula stage
(3) unicellular zygote (4) ovum

104. Placenta is a region where :-
(1) foetus is attached to mother by spermatic cord
(2) foetus is provided with mother's blood
(3) foetus receives nourishment from mother's blood
(4) foetus is covered by membranes

105. In human embryo, the extra embryonic membranes are formed by :-
(1) inner cell mass (2) trophoblast
(3) formative cells (4) follicular cells

PARTURITION

106. The expulsion of fully developed foetus from the uterus is known as :-
(1) ovulation (2) menstruation
(3) gestation (4) parturition

107. Oxytocin helps in mainly :-
(1) milk production
(2) child birth
(3) urine formation
(4) gametogenesis

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108. Which of the following is not true about parturition process ?
(1) Secretion of oxytocin hormone by posterior pituitary
(2) Narrowing of pelvic cavity by relaxin hormone
(3) Secretion of progesterone hormone is stopped
(4) General position of foetus is occipito-anterior

109. Foetal ejection reflex in human female is induced by :-
(1) differentiation of mammary glands
(2) pressure exerted by amniotic fluid
(3) release of oxytocin from pituitary gland
(4) fully developed foetus and placenta

EXTRA POINTS

110. A female gland corresponding to prostate of males is :-
(1) Bartholin's' gland
(2) bulbourethral gland
(3) clitoris
(4) paraurethral gland of Skene

111. In the female, which structure is homologous to penis of male ?
(1) Cervix (2) Vagina
(3) Uterus (4) Clitoris

112. Puberty occurs in females at the age of :-
(1) 8 - 10 years (2) 11-14 years
(3) 15-17 years (4) 18-20 years

113. Which is not correct about secondary sexual characters of female ?
(1) Development of mammary glands
(2) Presence of pubic hair
(3) Voice of low pitch
(4) Menarche

114. Which of the following is not a correct match of homologous structures ?
(1) Clitoris and penis
(2) Vagina and prostatic utricle
(3) Scrotum and labia majora
(4) Fallopian tube and prostate

115. Hyaluronic acid which binds cells of corona radiata is a :-
(1) homopolysaccharide
(2) amino acid
(3) glycoprotein
(4) mucopolysaccharide

116. Development of animal embryo from egg without fertilization is called as :-
(1) parthenogenesis (2) parthenocarpy
(3) apospory (4) apomixis

117. Identical twins will be produced when :-
(1) one spermatozoon fertilises two ova
(2) one ovum is fertilised by two spermatozoa
(3) two eggs are fertilised
(4) one fertilised egg divides into two blastomeres and they become separate

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EXERCISE-I (Conceptual Questions) ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	4	1	3	3	2	2	3	2	4	3	3	2	4	3
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	3	4	1	1	3	1	3	3	3	3	2	1	2	1	2
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	1	4	4	4	2	3	2	3	4	4	3	4	3	2	3
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	2	3	3	1	4	2	1	2	3	1	3	2	2	3
Question	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Answer	3	3	4	2	1	3	3	2	3	1	2	3	2	4	1
Question	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Answer	3	1	1	3	2	2	4	4	4	2	4	4	4	3	2
Question	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Answer	3	1	1	4	4	3	2	3	4	3	1	3	3	3	2
Question	106	107	108	109	110	111	112	113	114	115	116	117			
Answer	4	2	2	4	4	4	2	3	4	4	1	4			

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Exercise - II (Previous Year Questions) AIPMT/NEET

AIPMT 2006

1. Sertoli cells are regulated by the pituitary hormone known as:–
(1) FSH (2) GH
(3) Prolactin (4) LH

2. Withdrawal of which of the following hormones is the immediate cause of menstruation?
(1) Estrogen (2) FSH
(3) FSH–RH (4) Progesterone

AIPMT 2007

3. In the human female, menstruation can be deferred by the administration of :-
(1) FSH only
(2) LH only
(3) Combination of FSH and LH
(4) Combination of estrogen and progesterone

4. Which part of ovary in mammals acts as an endocrine gland after ovulation?
(1) Vitelline membrane
(2) Graffian follicle
(3) Stroma
(4) Germinal epithelium

AIPMT 2008

5. Which one of the following statements is incorrect about menstruation?
(1) At menopause in the female, there is especially abrupt increase in gonadotropic hormones
(2) The beginning of the cycle of menstruation is called menarche
(3) During normal menstruation about 40 ml blood is lost
(4) The menstrual fluid can easily clot

6. Which extraembryonic membrane in humans prevents desiccation of the embryo inside the uterus:-
(1) Yolk sac (2) Amnion
(3) Chorion (4) Allantois

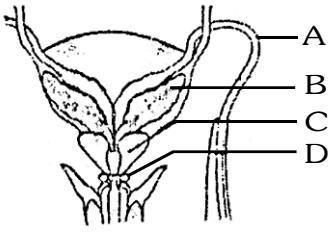
7. In human adult females oxytocin:-
(1) Stimulates pituitary to secrete vasopressin
(2) Causes strong uterine contractions during parturition
(3) Is secreted by anterior pituitary
(4) stimulates growth of mammary glands

8. In humans, at the end of the first meiotic division, the male germ cells differentiate into the:-
(1) Spermatids
(2) Spermatozonia
(3) Primary spermatocytes
(4) Secondary spermatocytes

AIPMT 2009

9. Seminal plasma in humans is rich in :-
(1) Fructose and certain enzymes but poor in calcium
(2) Fructose, calcium and certain enzymes
(3) Fructose and calcium but has no enzymes
(4) Glucose and certain enzymes but has no calcium

10. Given below is a diagrammatic sketch of a portion of human male reproductive system. Select the correct set of the names of the parts labelled A, B, C, D :-



(1) A–Ureter, B–Seminal vesicle, C–Prostate, D–Bulbourethral gland
(2) A–Ureter, B–Prostate, C–Seminal vesicle, D–Bulbourethral gland
(3) A–Vas deferens, B–seminal vesicle, C–Prostate, D–Bulbourethral gland
(4) A–Vas deferens, B–seminal vesicle, C–Bulbourethral gland, D–Prostate

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11. Which one of the following is the correct matching of the events occurring during menstrual cycle?
(1) Menstruation : Breakdown of myometrium and ovum not fertilised
(2) Ovulation : LH and FSH attain peak level and sharp fall in the secretion of progesterone.
(3) Proliferative phase : Rapid regeneration of myometrium and maturation of Graafian follicle.
(4) Development of corpus luteum : Secretory phase and increased secretion of progesterone.

12. The correct sequence of spermatogenetic stages leading to the formation of sperms in a mature human testis is :-
(1) Spermatogonia – Spermatid – Spermatocyte – Sperms
(2) Spermatocyte – Spermatogonia – Spermatid – Sperms
(3) Spermatogonia – Spermatocyte – Spermatid – Sperms
(4) Spermatid – Spermatocyte – Spermatogonia – Sperms

AIPMT 2010

13. Which one of the following statements about human sperm is correct?
(1) Acrosome serves no particular function
(2) Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in fertilisation
(3) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilisation
(4) Acrosome serves as a sensory structure leading the sperm towards the ovum

14. The part of Fallopian tube closest to the ovary is:-
(1) Ampulla (2) Isthmus
(3) Infundibulum (4) Cervix

15. The signals for parturition originate from:-
(1) Fully developed foetus only
(2) Placenta only
(3) Placenta as well as fully developed foetus
(4) Oxytocin released from maternal pituitary

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16. The second maturation division of the mammalian ovum occurs :-
(1) In the Graafian follicle following the first maturation division
(2) Shortly after ovulation before the ovum makes entry into the Fallopian tube
(3) Until after the ovum has been penetrated by a sperm
(4) Until the nucleus of the sperm has fused with that of the ovum

17. Which one of the following statements about morula in humans is correct?
(1) It has more cytoplasm and more DNA than an uncleaved zygote
(2) It has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA
(3) It has far less cytoplasm as well as less DNA than in an uncleaved zygote
(4) It has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote

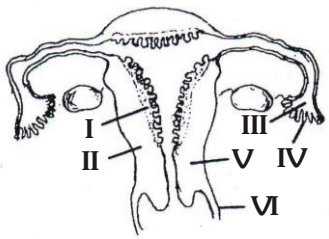
AIPMT 2011

18. If for some reason, the vasa efferentia in the human reproductive system get blocked, the gametes will not be transported from :-
(1) Testes to epididymis
(2) Epididymis to vas deferens
(3) Ovary to uterus
(4) Vagina to uterus

19. The testes in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for :-
(1) Maintaining the scrotal temperature lower than the internal body temperature
(2) Escaping any possible compression by the visceral organs.
(3) Providing more space for the growth of epididymis
(4) Providing a secondary sexual feature for exhibiting the male sex.

TG: @Chalnaayaaar

20. The figure given below depicts a diagrammatic sectional view of the female reproductive system of humans. Which one set of three parts out of I–VI have been correctly identified?



(1) (II)–Endometrium, (III)–Infundibulum, (IV)–Fimbriae
(2) (III)–Infundibulum, (IV)–Fimbriae, (V)–Cervix
(3) (IV)–Oviducal funnel, (V)–Uterus, (VI)–Cervix
(4) (I)–Perimetrium, (II)–Myometrium, (III)–Fallopian tube

AIPMT 2012

21. In a normal pregnant woman, the amount of total gonadotropin activity was assessed. The result expected was :-
(1) High levels of FSH and LH in uterus to stimulate endometrial thickening
(2) High levels of circulating HCG to stimulate estrogen and progesterone synthesis
(3) High level of circulating FSH and LH in the uterus to stimulate implantation of the embryo
(4) High level of circulating HCG to stimulate endometrial thickening

22. Which one of the following statements is false in respect of viability of mammalian sperm?
(1) Viability of sperm is determined by its motility
(2) Sperms must be concentrated in a thick suspension
(3) Sperm is viable for only up to 24 hours
(4) Survival of sperm depends on the pH of the medium and is more active in alkaline medium

TG: @Chalnaayaaar

23. Signals for parturition originate from :-
(1) Placenta only
(2) Fully developed foetus only
(3) Both placenta as well as fully developed foetus
(4) Oxytocin released from maternal pituitary

AIPMT 2013

24. Which one of the following is not the function of placenta? It :-
(1) secretes oxytocin during parturition
(2) facilitates supply of oxygen and nutrients to embyro
(3) secretes estrogen
(4) facilitates removal of carbon dioxide and waste material from embryo

25. Menstrual flow occurs due to lack of :-
(1) Vasopressin (2) Progesterone
(3) FSH (4) Oxytocin

AIPMT 2014

26. The main function of mammalian corpus luteum is to produce :
(1) estrogen only
(2) progesterone
(3) human chorionic gonadotropin
(4) relaxin only

27. Select the correct option describing gonadotropin activity in a normal pregnant female :-
(1) High level of FSH and LH stimulates the thickening of endometrium.
(2) High level of FSH and LH facilitate implantation of the embryo.
(3) High level of hCG stimulates the synthesis of estrogen and progesterone.
(4) High level of hCG stimulates the thickening of endometrium.

AIPMT 2015

28. Capacitation refers to changes in the :-
(1) Ovum before fertilization
(2) Ovum after fertilization
(3) Sperm after fertilization
(4) Sperm before fertilization

29. Hysterectomy is surgical removal of :-
(1) Prostate gland (2) Vas-deferense
(3) Mammary glands (4) Uterus

30. Which of the following cells during gametogenesis is normally dipoid?
(1) Spermatid
(2) Spermatogonia
(3) Secondary polar body
(4) Primary polar body

31. Which of these is not an important component of initiation of parturition in humans?
(1) Synthesis of prostaglandins
(2) Release of oxytocin
(3) Release of prolactin
(4) Increase in estrogen and progesterone ratio

Re-AIPMT 2015

32. Ectopic pregnancies are referred to as :-
(1) Pregnancies terminated due to hormonal imbalance
(2) Pregnancies with genetic abnormality.
(3) Implantation of embryo at site other than uterus.
(4) Implantation of defective embryo in the uterus

33. Which of the following events is not associated with ovulation in human female?
(1) LH surge
(2) Decrease in estradiol
(3) Full development of Graafian follicle
(4) Release of secondary oocyte

34. In human females, meiosis-II is not completed until?
(1) birth
(2) puberty
(3) fertilization
(4) uterine implantation

35. Which of the following layers in an antral follicle is acellular?
(1) Zona pellucida (2) Granulosa
(3) Theca internal (4) Stroma

TG: @Chalnaayaaar

NEET-I 2016

36. Fertilization in humans is practically feasible only if:-
(1) the sperms are transported into vagina just after the release of ovum in fallopian tube
(2) the ovum and sperms are transported simultaneously to ampullary isthmic junction of the fallopian tube
(3) the ovum and sperms are transported simultaneously to ampullary - isthmic junction of the cervix
(4) the sperms are transported into cervix within 48 hrs of release of ovum in uterus

37. Select the incorrect statement :-
(1) FSH stimulates the sertoli cells which help in spermiogenesis
(2) LH triggers ovulation in ovary
(3) LH and FSH decrease gradually during the follicular phase
(4) LH triggers secretion of androgens from the Leydig cells

38. Changes in GnRH pulse frequency in females is controlled by circulating levels of :-
(1) estrogen and progesterone
(2) estrogen and inhibin
(3) progesterone only
(4) progesterone and inhibin

39. Identify the correct statement on 'inhibin' :-
(1) Inhibits the secretion of LH, FSH and Prolactin.
(2) Is produced by granulose cells in ovary and inhibits the secretion of FSH.
(3) Is produced by granulose cells in ovary and inhibits the secretion of LH.
(4) Is produced by nurse cells in testes and inhibits the secretion of LH.

NEET-II 2016

40. Several hormones like hCG, hPL, estrogen, progesterone are produced by :-
(1) Fallopian tube (2) Pituitary
(3) Ovary (4) Placenta

TG: @Chalnaayaaar

41. Which of the following depicts the correct pathway of transport of sperms?
(1) Rete testis → Vas deferens → Efferent ductules → Epididymis
(2) Efferent ductules → Rete testis → Vas deferens → Epididymis
(3) Rete testis → Efferent ductules → Epididymis → Vas deferens
(4) Rete testis → Epididymis → Efferent ductules → Vas deferens

42. Match Column-I with Column-II and select the correct option using the codes given below:-

Column-I	Column-II
a. Mons pubis	i. Embryo formation
b. Antrum	ii. Sperm
c. Trophectoderm	iii. Female external genitalia
d. Nebenkern	iv. Graafian follicle

Codes:
(1) a–iii, b–i, c–iv, d–ii
(2) a–i, b–iv, c–iii, d–ii
(3) a–iii, b–iv, c–ii, d–i
(4) a–iii, b–iv, c–i, d–ii

NEET-UG 2016

43. Capacitation occurs in :-
(1) Epididymis
(2) Vas deferens
(3) Female reproductive tract
(4) Rete testis

44. A temporary endocrine gland in the human body is:-
(1) Corpus cardiacum (2) Corpus luteum
(3) Corpus allatum (4) Pineal gland

45. GnRH, a hypothalamic hormone, needed in reproduction, acts on:-
(1) anterior pituitary gland and stimulates secretion of LH and FSH.
(2) posterior pituitary gland and stimulates secretion of oxytocin and FSH.
(3) posterior pituitary gland and stimulates secretion of LH and relaxin.
(4) anterior pituitary gland and stimulates secretion of LH and oxytocin.

TG: @Chalnaayaaar

NEET-UG 2018

46. Hormones secreted by the placenta to maintain pregnancy are :
(1) hCG, hPL, progestogens, prolactin
(2) hCG, hPL, estrogens, relaxin, oxytocin
(3) hCG, hPL, progestogens, estrogens
(4) hCG, progestogens, estrogens, glucocorticoids

47. The difference between spermiogenesis and spermiation is :-
(1) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed.
(2) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.
(3) In spermiogenesis spermatozoa from Sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.
(4) In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from Sertoli cells into the cavity of seminiferous tubules.

48. The amnion of mammalian embryo is derived from :-
(1) ectoderm and mesoderm
(2) endoderm and mesoderm
(3) mesoderm and trophoblast
(4) ectoderm and endoderm

NEET-UG 2019

49. Select the correct sequence of transport of sperm cells in male reproductive system :-
(1) Testis → Epididymis → Vasa efferentia → Rete testis → Inguinal canal → Urethra
(2) Seminiferous tubules → Rete testis → Vasa efferentia → Epididymis → Vas deferens → Ejaculatory duct → Urethra → Urethral meatus
(3) Seminiferous tubules → Vasa efferentia → Epididymis → Inguinal canal → Urethra
(4) Testis → Epididymis → Vasa efferentia → Vas deferens → Ejaculatory duct → Inguinal canal → Urethra → Urethral meatus

50. Extrusion of second polar body from egg nucleus occurs :
(1) after entry of sperm but before fertilization
(2) after fertilization
(3) before entry of sperm into ovum
(4) simultaneously with first cleavage

NEET-UG 2019 (Odisha)

51. No new follicles develop in the luteal phase of the menstrual cycle because :
(1) Follicles do not remain in the ovary after ovulation
(2) FSH levels are high in the luteal phase
(3) LH levels are high in the luteal phase
(4) Both FSH and LH levels are low in the luteal phase

NEET-UG 2020

52. Which of the following hormone levels will cause release of ovum (ovulation) from the Graafian follicle?
(1) Low concentration of FSH
(2) High concentration of Estrogen
(3) High concentration of Progesterone
(4) Low concentration of LH

53. Match the following columns and select the correct option :-

Column-I	**Column-II**
(a) Placenta	(i) Androgens
(b) Zona pellucida	(ii) Human Chorionic Gonadotropin (hCG)
(c) Bulbo-urethral glands	(iii) Layer of the ovum
(d) Leydig cells	(iv) Lubrication of the Penis

(1) (a)–(ii), (b)–(iii), (c)–(iv), (d)–(i)
(2) (a)–(iv), (b)–(iii), (c)–(i), (d)–(ii)
(3) (a)–(i), (b)–(iv), (c)–(ii), (d)–(iii)
(4) (a)–(iii), (b)–(ii), (c)–(iv), (d)–(i)

54. Meiotic division of the secondary oocyte is completed :-
(1) At the time of fusion of a sperm with an ovum
(2) Prior to ovulation
(3) At the time of copulation
(4) After zygote formation

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NEET-UG 2021

55. Receptors for sperm binding in mammals are present on:-
(1) Corona radiata
(2) Vitelline membrane
(3) Perivitelline space
(4) Zona pellucida

56. Which of these is not an important component of initiation of parturition in humans?
(1) Increase in estrogen and progesterone ratio
(2) Synthesis of prostaglandins
(3) Release of Oxytocin
(4) Release of Prolactin

57. Which of the following secretes the hormone, relaxin, during the later phase of pregnancy?
(1) Graafian follicle (2) Corpus luteum
(3) Foetus (4) Uterus

NEET-UG 2022

58. Given below are two statements:
Statement I: The release of sperms into the seminiferous tubules is called spermiation.
Statement II: Spermiogenesis is the process of formation of sperms from spermatogonia.
In the light of the above statements, choose the **most appropriate** answer from the options given below:
(1) Both **Statement I** and **Statement II** are incorrect
(2) **Statement I** is correct but **Statement II** is incorrect
(3) **Statement I** is incorrect but **Statement II** is correct
(4) Both **Statement I** and **Statement II** are correct

59. Which of the following statements are true for spermatogenesis but **do not** hold true for Oogenesis?
(a) It results in the formation of haploid gametes
(b) Differentiation of gamete occurs after the completion of meiosis

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(c) Meiosis occurs continuously in a mitotically dividing stem cell population
(d) It is controlled by the Luteinising hormone (LH) and Follicle Stimulating Hormone (FSH) secreted by the anterior pituitary
(e) It is initiated at puberty
Choose the **most appropriate** answer from the options given below:
(1) (b) and (c) only
(2) (b), (d) and (e) only
(3) (b), (c) and (e) only
(4) (c) and (e) only

Re-NEET-UG 2022

60. Arrange the components of mammary gland. (from proximal to distal)
(a) Mammary duct
(b) Lactiferous duct
(c) Alveoli
(d) Mammary ampulla
(e) Mammary tubules
Choose the most appropriate answer from the options given below :
(1) (c) → (a) → (d) → (e) → (b)
(2) (b) → (c) → (e) → (d) → (a)
(3) (c) → (e) → (a) → (d) → (b)
(4) (e) → (c) → (d) → (b) → (a)

61. How many secondary spermatocytes are required to form 400 million spermatozoa ?
(1) 50 million (2) 100 million
(3) 200 million (4) 400 million

62. Given below are two statements : one is **labelled** as **Assertion (A)** and the other is labelled as **Reason (R).**
Assertion (A) : During pregnancy the level of thyroxine is increased in the maternal blood.
Reason (R) : Pregnancy is characterised by metabolic changes in the mother.
In the light of the above statements, choose **the most appropriate answer** from the options given below :
(1) Both **(A)** and **(R)** are correct and **(R)** is the correct explanation of **(A)**
(2) Both **(A)** and **(R)** are correct but **(R)** is not the correct explanation of **(A)**
(3) **(A)** is correct but **(R)** is not correct
(4) **(A)** is not correct but **(R)** is correct

Exercise - II (Previous Year Questions) ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	1	4	4	2	4	2	2	4	1	3	4	3	3	3	3
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	3	2	1	1	2	2	3	3	1	2	2	3	4	4	2
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	3	3	2	3	1	2	3	1	2	4	3	4	3	2	1
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	4	1	2	1	4	2	1	1	4	4	2	2	3	3
Question	61	62													
Answer	3	1													

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Exercise - III — Master Your Understanding

EXERCISE-III (A) (NCERT Based QUESTIONS)

1. How many testicular lobules are present in each testis ?
(1) About 100 (2) About 150
(3) About 250 (4) Infinite

2. The male accessory glands include :-
(1) prostate gland
(2) bulbourethral glands
(3) seminal vesicles
(4) All of the above

3. In male, penis is covered by a loose fold of skin called as :-
(1) foreskin (2) urethral meatus
(3) external genitalia (4) fimbriae

4. The function of fimbriae is :-
(1) to collect ovum after ovulation
(2) to maintain the shape of ovary
(3) to provide the path to sperm during fertilization
(4) None of the above

5. Which of the following statements is wrong ?
(1) Mammary lobes contain clusters called as alveoli.
(2) Uterus is also called as womb.
(3) The last part of the oviduct is called as ampulla.
(4) Stroma of ovary is divided into two zones.

6. Secretion of which of the following hormones induces spermatogenesis ?
(1) GnRH (2) LTH
(3) Oxytocin (4) Relaxin

7. Antrum is :-
(1) follicular cavity filled with fluid
(2) an inner theca layer
(3) the mature follicle
(4) follicular cavity with no fluid

8. Ovulation is :-
(1) Release of secondary oocyte from ovary
(2) Release of primary oocyte from ovary
(3) Release of polar body
(4) Release of Graafian follicle

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9. For normal fertility, how much percentage of total sperms must have normal shape and size ?
(1) 50 % (2) 25 %
(3) 40 % (4) 60 %

10. When do both LH & FSH attain a peak level in a menstrual cycle ?
(1) In last week of the cycle
(2) In mid of the cycle
(3) During Initial days of cycle
(4) On 4th day of cycle

11. Which of the following statements is not correct ?
(1) In the absence of fertilization, the corpus luteum is degenerated.
(2) During pregnancy, all events of menstrual cycle are stopped.
(3) The secretion of LH and FSH decreases gradually during the follicular phase.
(4) The menstrual flow results due to breakdown of endometrial lining.

12. In which phase of menstrual cycle Graafian follicle is transformed into corpus luteum ?
(1) Luteal phase
(2) Proliferative phase
(3) Follicular phase
(4) Growth phase

13. Which of the hormones is essential for maintenance of the endometrium ?
(1) FSH (2) LH
(3) Progesterone (4) Testosterone

14. Which of the following is an indicator of normal reproductive phase and extends between menarche and menopause ?
(1) Menstrual cycle (2) Estrous cycle
(3) Ovulation (4) Implantation

15. In human, fertilization takes place in :-
(1) cervix (2) ampulla
(3) isthmus (4) vagina

16. The embryo with 8 to 16 blastomeres is called as :-
(1) morula (2) blastocyst
(3) gastrula (4) foetus

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17. During Implantation, the blastocyst gets embedded in which layer of the uterus?
(1) Trophoblast (2) Endometrium
(3) Myometrium (4) Perimetrium

18. The mitotic division starts as the zygote moves through the ____ of the oviduct called cleavage towards the uterus.
(1) ampulla (2) isthmus
(3) fimbriae (4) infundibulum

19. During fertilization, a sperm comes in contact with which layer of the ovum ?
(1) Jelly coat
(2) Zona pellucida
(3) Vitelline membrane
(4) Perivitelline space

20. Function of placenta is to :-
(1) supply O_2 to embryo
(2) removal CO_2 produced by the embryo
(3) produce several hormones
(4) All of the above

21. Stem cells are found in :-
(1) inner cell mass (2) ectoderm
(3) endoderm (4) mesoderm

22. The first sign of growing foetus may be noticed by :-
(1) listening to the heart sound carefully with the help of stethoscope
(2) appearance of hair
(3) appearance of head
(4) appearance of eye lids

23. Placenta contains :-
(1) only chorionic villi
(2) only uterine tissue
(3) chorionic villi and uterine tissue
(4) trophoblast and chorionic villi

24. The average duration of human pregnancy is about nine months which is known as :-
(1) gestation period (2) parturition
(3) lactation (4) implantation

25. The signals for parturition originate from :-
(1) fully developed foetus
(2) placenta
(3) both fully developed foetus and placenta
(4) uterus

26. Which hormone acts on uterine myometrium during parturition ?
(1) Oxytocin (2) LH
(3) Estrogen (4) Relaxin

27. Which gland of female human undergoes differentiation during pregnancy ?
(1) Adrenal gland (2) Mammary gland
(3) Pituitary gland (4) Thymus gland

28. Which of the following is correct for colostrum ?
(1) It contains severel antibodies.
(2) It is produced during the last few days of lactation.
(3) It is a pheromone.
(4) It is white in colour.

29. Human beings are :-
(1) ovoviviparous (2) oviparous
(3) parthenogenetic (4) viviparous

EXERCISE-III (B) (ANALYTICAL QUESTIONS)

30. What does happen if vasa deferentia are cut in a man ?
(1) Sperms become non nucleated.
(2) Spermatogenesis does not occur.
(3) Semen is ejaculated without sperms.
(4) Sperms have no motality.

31. If epididymis is removed, then what does happen in a man ?
(1) Sperms have shorter life span.
(2) Sperms travel the pathway in lesser time.
(3) Functional maturation of sperms takes lesser time.
(4) Sperms are incapable for fertilization.

32. Which of the following is not correct about sustentacular cells ?
(1) These are present in between the germinal epithelial cells.
(2) These are related with the nutrition of sperm.
(3) These form blood testis barrier.
(4) These form testosterone from oestrogen.

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33. After some time of ejaculation, semen liquefies due to presence of an enzyme which is found in the secretion of :-
(1) vagina (2) seminal vesicle
(3) prostate gland (4) Cowper's gland

34. If Cowper's gland is removed, then which of the following would be affected ?
(1) Sexual attraction
(2) Capacitation of sperms
(3) Hardness of penis
(4) Copulation and fertilization

35. Which of the following releases inhibin to control spermatogenesis ?
(1) Rete testis
(2) Follicular cells
(3) Leydig's cells
(4) Sustentacular cells

36. Correct order of spermatogenesis is :-
(1) Spermatocytes, Spermatogonium, Spermatids, Sperms
(2) Spermatogonium, Spermatids, Spermatocytes, Sperms
(3) Spermatids, Spermatogonium, Spermatocytes, Sperms
(4) Spermatogonium, Primary Spermatocytes, Secondary Spermatocytes, Spermatids, Sperms

37. Given below are two statements:
Statement-I : The edge of the infundibulum posses finger like projections called fimbriae, which helps in collection of ovum after ovulation.
Statement-II : Uterus is supported by tendons attached to the pelvic wall.
In the light of the above statements, choose the most appropriate answer from the options given below:
(1) Both Statement-I and II both are incorrect.
(2) Statement-I is correct but statement-II is incorrect.
(3) Statement-I is incorrect and Statement-II is correct.
(4) Both Statement-I and Statement-II are correct.

38. How many secondary spermatocytes form 400 spermatozoa ?
(1) 100 (2) 400 (3) 40 (4) 200

39. Match the column-A with column-B.

Column A		Column B	
A	Mons pubis	i	Fleshy folds of tissue
B	Labia majora	ii	Paired folds of tissue
C	Labia minora	iii	Finger-like structure
D	Clitoris	iv	Cushion of fatty tissue

(1) A-iv, B-i, C-ii, D-iii
(2) A-ii, B-iv, C-i, D-iii
(3) A-iv, B-ii, C-i, D-iii
(4) A-iii, B-iv, C-ii, D-i

40. At which stage of spermatogenesis, sperms acquire their whole structural maturity and now these contain a haploid nucleus & other organelles ?
(1) Spermiogenesis
(2) Growth phase
(3) Multiplication phase
(4) Maturation phase

41. How many sperms and ova are formed respectively from 50 secondary oocytes and 50 secondary spermatocytes in human ?
(1) 50 ova and 200 sperm
(2) 50 ova and 100 sperm
(3) 100 ova and 200 sperm
(4) 100 ova and 400 sperm

42. Human egg has :-
(1) one Y-chromosome
(2) one X-chromosome
(3) two Y-chromosome
(4) one X-chromosome and one Y-chromosome.

43. Given below are two statements:
Statement-I : LH act on leydig cells and stimulates synthesis and secretion of androgens.
Statement-II : FSH acts on the sertoli cells and stimulates secretion of some factors which help in the process of spermiogenesis .
In the light of the above statements, choose the most appropriate answer from the options given below:

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(1) Both Statement-I and II both are incorrect.
(2) Statement-I is correct but statement-II is incorrect.
(3) Statement-I is incorrect and Statement-II is correct.
(4) Both Statement-I and Statement-II are correct.

44. Oocyte is liberated from ovary under the influence of LH, after completing :
(1) meiosis and before liberating polar bodies
(2) meiosis I and before liberating second polar body
(3) meiosis
(4) meiosis II after release of first polar body

45. Extrusion of second polar body from egg nucleus occurs :-
(1) after entry of sperm but before completion of fertilization
(2) after completion of fertilization
(3) before entry of sperm
(4) without any relation to sperm entry.

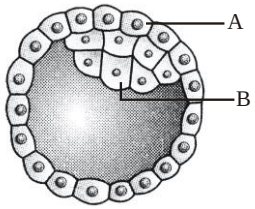
46. If both ovaries are removed from human then level of which hormone is decreased in blood?
(1) Oxytocin
(2) Prolactin
(3) Estrogen
(4) Gonadotrophic releasing factor

47. In a 30 years old lady, eggs are released in the form of :-
(1) oogonia (2) primary oocyte
(3) secondary oocyte (4) atretic follicle

48. Phases in a menstrual cycle are :-
(1) Recovery phase and proliferative phase
(2) Proliferative phase and secretory phase
(3) Proliferative phase, secretory phase and menstrual phase
(4) Recovery phase, secretory phase and menstrual phase

49. After ovulation, follicles are converted into:-
(1) corpus luteum (2) corpus albicans
(3) corpus cavernosa (4) corpus callosum

50. In following structure, identify A & B and their respective functions.



Blastocyst

	A	B	Function of	
			A	B
(1)	Trophoblast	Inner cell mass	Attachment with endometrium	Differentiation as embryo
(2)	Trophoblast	Inner cell mass	Differentiation as embryo	Attachment with endometrium
(3)	Mesoderm	Inner cell mass	Differentiation as embryo	Attachment with endometrium
(4)	Ectoderm	Mesoderm	Attachment with endometrium	Differentiation as embryo

51. In a menstrual cycle, ovulation normally takes place :-
(1) at the end of proliferative phase
(2) at the mid of secretory phase
(3) just before the end of secretory phase
(4) at the beginning of the proliferative phase

52. In a menstrual cycle, hormones start increasing in which order from the beginning of menstruation ?
(1) FSH, progesterone, estrogen
(2) Estrogen, FSH, progesterone
(3) FSH, estrogen, progesterone
(4) Esterogen, progesterone, FSH

53. At the time of ovulation, the human egg is covered by a membrane called as :-
(1) chorion (2) zona pellucida
(3) corona radiata (4) Both (2) & (3)

54. How many cleavage divisions are required for the formation of 16 blastomeres ?
(1) 2 (2) 4 (3) 6 (4) 8

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55. The blastomeres in the blastocyst are arranged into an outer layer called ___**A**____, and inner group of cells attached to trophoblast called the ___**B**___. What are 'A' and 'B' respectively ?
(1) trophoblast, inner cell mass
(2) inner cell mass, trophoblast
(3) chorion, amnion
(4) amnion, chorion

56. What is true about cleavage ?
(1) Nucleocytoplasmic ratio remains unchanged.
(2) Size of an embryo does not increase.
(3) There is less consumption of oxygen.
(4) The division is similar to meiosis.

57. What is true about cleavage in a fertilized egg of human ?
(1) It is of meroblastic type.
(2) It starts when egg reaches in uterus.
(3) It starts in fallopian tube.
(4) It is identical to normal mitosis.

58. Which type of cell division occurs during cleavage?
(1) Amitosis (2) Mitosis
(3) Closed mitosis (4) Meiosis

59. Fertilisation has following processes :-
(a) Plasmogamy (b) Karyogamy
(c) Syngamy (d) Amphimixis
Arrange these in correct sequence.
(1) a → b → c → d (2) b → a → d → c
(3) c → a → b → d (4) c → a → d → b

60. Correct sequence of embryonic development is :-
(1) Fertilization ⟶ Zygote ⟶ Cleavage ⟶ Morula ⟶ Blastula ⟶ Gastrula
(2) Fertilization ⟶ Zygote ⟶ Blastula ⟶ Morula ⟶ Cleavage ⟶ Gastrula
(3) Fertilization ⟶ Cleavage ⟶ Morula ⟶ Zygote ⟶ Blastula ⟶ Gastrula
(4) Cleavage ⟶ Zygote ⟶ Fertilization ⟶ Morula ⟶ Blastula ⟶ Gastrula

61. The lytic enzyme present in semen is :-
(1) ligase (2) estrogenase
(3) androgenase (4) hyaluronidase

62. Given below are two statements:
Statement-I : hCG, hPL and relaxin are produced in women only during pregnancy.
Statement-II : By end of about 12 weeks, the body of foetus is covered with hairs, eye-lids separate, and eye lashes are formed.
In the light of the above statements, choose the most appropriate answer from the options given below:
(1) Both Statement-I and II both are incorrect.
(2) Statement-I is correct but statement-II is incorrect.
(3) Statement-I is incorrect and Statement-II is correct.
(4) Both Statement-I and Statement-II are correct.

63. Which one of following parts is present in male but not in female ?
(1) Urethra (2) Fallopian tube
(3) Vagina (4) Vas deferens

64. Which hormone is not involved in the process of parturition ?
(1) Oxytocin (2) Prolactin
(3) Estrogen (4) Cortisol

65. Accessory sexual characters in female is promoted by :-
(1) androgen (2) progesterone
(3) estrogen (4) testosterone

66. The cellular layer that disintegrates and regenerates again and again in human is :-
(1) endometrium of uterus
(2) cornea of eye
(3) dermis of skin
(4) endothelium of blood vessels

67. The functional maturation of sperms takes place in :-
(1) oviduct (2) epididymis
(3) vagina (4) All of these

68. The follicle that ruptures at the time of ovulation promptly fills with blood and forms:-
(1) corpus haemorrhagicum
(2) corpus luteum
(3) corpus albicans
(4) corpus callosum

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69. In human, the estrogen is secreted by the Graafian follicle from its :-
(1) external theca (2) internal theca
(3) zona pellucida (4) corona radiata

70. Supporting cells found in the germinal epithelium of testis are called as :-
(1) Interstitial cells of Leydig
(2) Sertoli cells
(3) granular cells
(4) phagocytes

71. Atretic follicles are found in the :-
(1) fallopian tube (2) uterus
(3) labia majora (4) ovary

72. Which of the following hormones are produced in women only during pregnancy ?
(a) hPL (b) Relaxin
(c) Androgen (d) FSH
(e) hCG (f) LH
(1) a,b,e (2) b & e
(3) c,d,e,f (4) a,b,c,d,e,f

73. Which of the following cells undergoes spermiogenesis ?
(1) Spematids
(2) Spermatogonia
(3) Primary spermatocytes
(4) Secondary spermatocytes

74. Various changes in human sperm which prepare it to fertilise the ovum are called collectively as :-
(1) capacitation (2) regeneration
(3) growth (4) None of these

75. During oogenesis, the small structure separated from egg is known as :-
(1) polar body
(2) secondary endosperm
(3) Herring body
(4) Hela cell

76. In human foetus, the heart begins to beat at developmental age of :-
(1) 4 weeks (2) 3 weeks
(3) 6 weeks (4) 8 weeks

77. Polar bodies are produced during the formation of :-
(1) sperms
(2) oogonia
(3) spermatocytes
(4) secondary oocytes

78. Which of the following does not occur during natural menopause in a female ?
(1) Progesterone level in blood is decreased.
(2) FSH and LH levels in blood are decreased.
(3) Estrogen level in blood is decreased.
(4) Uterine changes are stopped.

79. Which of the following layers is developed first during embryonic development ?
(1) Ectoderm (2) Mesoderm
(3) Endoderm (4) Both (1) & (3)

80. In a sperm, the mitochondria are occured :-
(1) in tail (2) in acrosome
(3) in middle piece (4) in head

81. Which of the following sets of enzymes is found in the acrosome of human sperm ?
(1) Hyaluronidase, Collagenase
(2) Hyaluronidase, Zona lysin
(3) Hyaluronidase, Peptidase
(4) Only hyaluronidase

82. Fixing up of the blastocyst in the wall of the uterus is known as :-
(1) fertilization (2) implantation
(3) impreganation (4) placentation

83. Placenta in human beings is formed by :-
(1) amnion
(2) chorion
(3) allantois
(4) chorion and uterine wall

84. The phenomenon of nuclear fusion of sperm and egg is known as :-
(1) karyogamy (2) parthenogenesis
(3) vitellogenesis (4) oogenesis

85. Sertoli cells are involved in :-
(1) respiration
(2) nutrition of sperms
(3) excretion
(4) development of sex organs

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Exercise - III — ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	4	1	1	3	1	1	1	4	2	3	1	3	1	2
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	1	2	2	2	4	1	1	3	1	3	1	2	1	4	3
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	4	4	3	4	4	4	2	4	1	1	2	2	4	2	1
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	3	3	1	1	1	3	4	2	1	2	3	3	3	1
Question	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Answer	4	2	4	2	3	1	2	1	2	2	4	1	1	1	1
Question	76	77	78	79	80	81	82	83	84	85					
Answer	1	4	2	4	3	2	2	4	1	2					